DOCUMENT RESUME

ED 474 229 CE 084 664

TITLE	Tools in HRD. Symposium.
REPORT NO	No-24
PUB DATE	2002-00-00
NOTE	26p.; In: Academy of Human Resource Development (AHRD) Conference Proceedings (Honolulu, Hawaii, February 27-March 3, 2002); see CE 084 635.
PUB TYPE	Opinion Papers (120) -- Speeches/Meeting Papers (150)
EDRS PRICE	EDRS Price MF01/PC02 Plus Postage.
DESCRIPTORS	Action Research; Adult Education; Adult Learning; Educational Benefits; Educational Practices; *Educational Research; Educational Theories; *Game Theory; Human Resources; Instructional Development; *Labor Force Development; Learning Theories; Literature Reviews; Organizational Development; Postsecondary Education; *Research Methodology; Research and Development; *Theory Practice Relationship; Training; Training Methods
IDENTIFIERS	*Appreciative Inquiry; *Scenario Writing; Scenarios

ABSTRACT

This document contains three papers from a symposium on tools in human resource development (HRD). "Game Theory Methodology in HRD" (Thomas J. Chermack, Richard A. Swanson) explores the utility of game theory in helping the HRD profession address the complexity of integrating multiple theories for disciplinary understanding and fulfilling its strategic roles. "Scenario Planning: An Examination of Definitions, Dependent Variables, and Support for Development as an HRD Tool" (Thomas J. Chermack, Susan A. Lynham) reports on an exploratory study in which the literature on scenario planning was reviewed, analyzed, and synthesized to develop an integrative definition of scenario planning that captures its essences and targeted outcomes (changed thinking, informed narratives or stories about possible or plausible futures, improved decision making about the future, and enhanced human learning and imagination) and determine the relevance and use of scenario planning for HRD practitioners and scholars. "Appreciative Inquiry: Assumptions, Approaches, and Implications for HRD" (T. Marshall Egan, Cynthia McLean Lancaster) summarizes a study in which a literature review and examination of the views of experienced HRD practitioners resulted in the identification of 16 specific strengths and 10 specific weaknesses of the appreciative inquiry approach. All three papers include substantial bibliographies. (MN)

Reproductions supplied by EDRS are the best that can be made
from the original document.

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Chermack/Lancaster

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

ED 474 229

2002 AHRD Conference

Tools in HRD

Symposium 24

Honolulu, Hawaii

February 27 - March 3, 2002

BEST COPY AVAILABLE

CE084664

Game Theory Methodology in HRD

Thomas J. Chermack
Richard A. Swanson
University of Minnesota

Two of the overriding issues facing the human resource development profession include the complexity of (1) integrating multiple theories for disciplinary understanding and in (2) fulfilling its strategic roles. Based on the literature and logical connections, game theory methodology was determined to have potential in helping the HRD profession addressing these complex issues.

Key Words: Game Theory, HRD Theory, Strategic HRD

There has been great concern that the HRD profession must become more strategic in its efforts (Gilley & Maycunich, 1998; Walton, 1999). Some have even proposed specific strategic roles of HRD (Torraco & Swanson, 1995). Furthermore, there is general consensus among scholars that the discipline of Human Resource Development (HRD) is grounded in the recognition and integration of multiple theories. Psychological, economic, and system theories are generally viewed as essential, if not core (Holton, 2001; Ruona, 2001; Swanson, 2001; Torraco, 2001).

Thus, two of the overriding issues facing the HRD profession include the complexity of (1) integrating multiple theories for disciplinary understanding and in (2) fulfilling its strategic roles.

On a completely separate path, a growing number of people are recognizing the importance of game theory (Brandenburger & Nalebuff, 1996; Fundenburg & Levine, 1999). Game theory tracks how outcomes of interactions between players are affected by the rules of the game, the tactics employed, and by the players' beliefs about each other (Gibbons, 1992). Game theory sets up the interrelationships in an organization as a simple exchange, a choice. Each player will make his or her move and expect certain consequences and reactions. Game theory is also founded on economic principles (Gibbons, 1992) and has been extensively tested (Fudneberg & Levine, 1999; Levine & Pesendorfer, 2001; Wright, 2000). Brandenburger & Nalebuff (1996) simplify some of the more complex concepts and equations found in game theory and apply them to business strategy. The application of game theory to the social sciences is only beginning and this paper intends to explore the application, usefulness and relevance of game theory to HRD.

Purpose of the Paper

The purpose of this paper is to explore the utility of *game theory* in helping the HRD profession address the complexity (1) of integrating multiple theories for disciplinary understanding and in (2) fulfilling its strategic roles.

Research Questions and Methodology

This paper first focuses on rational for the inquiry, provides an overview of *game theory* (what it is, how it works, and general principals), and discusses the potential role of *game theory methodology* in addressing the two identified critical HRD issues. These issues, in question form, read as follow:

- Can *game theory methodology* provide assistance to the HRD profession in integrating multiple theories for disciplinary understanding?
- Can *game theory methodology* provide assistance to the HRD profession in fulfilling its strategic roles?

In that this is a preliminary investigation, the methodology used in answering these questions was a literature review along with an analysis and synthesis from the perspective of the two research questions.

Theoretical Framework and Rationale for the Inquiry

HRD has seen increasing interest in the development and application of theory (Swanson, 1996, 1998). In January 2002 the profession saw the first issue of the new HRD theory journal, *Human Resource Development Review*. It is being led by Elwood F. Holton (Editor) and Richard J. Torraco (Associate editor). The call for theory development in the HRD profession justifies expansive theory discussions and focused theory building research. Since 1996,

Copyright © 2002 Thomas J. Chermack and Richard A. Swanson

Swanson has advocated that the discipline of HRD is based on three core theories – psychological, system, and economic theories. Metaphorically, he portrayed this as a 3-legged stool with each theory domain having one of the legs. Furthermore, the proposition is made that when all three legs are called upon and are integrated, they provide the uniqueness of the profession as well as the stability and flexibility required to be effective.

Almost everyone in HRD acknowledges the important of psychological theory to the profession. To a lesser extent there are advocates of system theory, and to an even lesser extent there is support for economic theory. As important as psychological theory is to HRD, it by itself is inadequate (Holton, 2001). Disproportionate attention to the psychological leg may limit theory growth and the strategic impact of HRD.

For example, Robert Gagne (1964) addressed the psychology of learning community in his classic keynote paper to the American Psychological Association. His paper on learning principles continues to provide a blunt challenge to those who *only* study learning in terms of what happens inside a person. His thesis, informed by research and experience, is that we should study *what* is to be learned instead of dwelling on psychological principles conceptualised apart from the learning task. Clearly, Gagne was more interested in the *system* requirements that the traditional *psychological* requirements of learning (1964).

Despite the warning for Gagne, and from even earlier works (see Dooley, 1945), the HRD profession continues its disproportionate dependence on psychological theory and its derivative– learning theory. More specifically, the discipline of Adult Education almost exclusively focuses on the internal process of the learner and not on the external context and system demands. This void is a fundamental reason why Adult Education theory in itself is woefully inadequate in responding to the scope of problems facing the HRD profession. Even when adult educators reach toward the organizational context, they remain bounded by the individual learning process. One such example from adult education is the concept of transformative learning that many HRD professionals are familiar with. While Merizow and his associates (2000) seem to pose many of the right entry questions related to change and transformation, they offer very little in terms of theory or applied tools for rigorously studying the substance and demands of the *context* or the *basis of the learning problem*. As a part of Mezirow's (2000) edited work, Yorks and Marsick (2000) write about organizational learning and transformation. They extend themselves to groups of learners and never substantively address the substance of the group's sponsoring organization and its context. They do allude to the idea that "the goal of organizational transformation is allowing the organization to more effectively realise its performance goals." (Yorks & Marsick, p. 254). While performance goals are referred to, Yorks and Marsick offer nothing more on the effective realisation of performance goals in terms of on-going analysis or verification of outcomes. The authors simply drop back into individual learning constructs – *psychological* theory – and ignore the promise of addressing *system* and *economic* theories in any substantial manner.

Game theory has developed out of economics as a means of addressing decision-making within complex and strategic real-life situations. It has always had an eye toward theory to practice. As game theory has matured it has clearly gone beyond its economic roots and has expanded to embrace *system* and *psychological* realms. For these reasons, it seems worthy to explore game theory and its potential in helping the profession embrace and integrate psychological, system, and economic theories and for assessing the utility of game theory in advancing HRD strategic roles.

Overview of Game Theory: What it is, How it Works, and General Principals

Developing out of economic theory and British submarine warfare, game theory was first applied to the political sciences as a potential means for ensuring political integrity (Brandenburg & Nalebuff, 1996; Fundenberg & Levine, 1999.). Game theorists thought that if they could instil in leaders a deep understanding that millions of lives are riding on the decisions and political manoeuvring of the few, powerful leaders would act in a way more beneficial to the community at large (Gibbons, 1992). When this attempt was regarded as unsuccessful, game theorists began to concentrate their efforts in parlor games, predictability, and mathematics.

Game theory is a theory of social situations (Fundenberg & Levine, 1999), or "the study of multiperson decision problems" (Gibbons, 1992. p. xi). Levine (2000) defines game theory as "the mathematical study of human interactions described by rules of play and alternative choices" (p. 1). McCain, (2000) states: "Game theory is a distinct and interdisciplinary approach to the study of human behavior" (p. 2).

Economic theory has four main branches, namely, decision theory, general equilibrium theory, mechanism design theory, and game theory (Levine, 2000). There are two main branches of game theory: cooperative and non-cooperative. Non-cooperative game theory (also referred to as *zero-sum*) deals with how individuals interact with one another in an effort to achieve their own individual goals. In these non-cooperative games, one player wins and the other loses. These are usually simple games in which the winner takes everything. Examples include tennis, chess, and boxing. In cooperative, or *non-zero sum* games, one player's gain need not be a loss for the other. Non-

BEST COPY AVAILABLE

zero sum games, when played correctly produce enough wins for everybody. Non-zero sum games attempt to model the real world. Each player's interaction with another player will have effects that may seem unrelated yet are interrelated and far-reaching.

Choices and alternatives in game theory are most commonly displayed in a table (see figure 1). From this profile, it is easy to determine what each player's payoff is under each alternative choice. Games have been a scientific metaphor since the work of von Neumaan & Morgenstern (1947), which has been credited as the first important and unified work in game theory.

Figure 1. The basic map of the alternatives and payoffs in a game.

Player 1	Player 2		
		Option X	*Option Y*
	Option X	(Payoff for Player 1, Payoff for Player 2)	(Payoff for Player 1, Payoff for Player 2)
	Option Y	(Payoff for Player 1, Payoff for Player 2)	(Payoff for Player 1, Payoff for Player 2)

The Prisoner's Dilemma

Perhaps the most notable example of a non-zero sum game is the famous Prisoner's Dilemma (Tucker, 1950). In the dilemma, you and a partner in crime are interrogated separately. The evidence to convict both of you of the crime is lacking, but there is enough evidence for a lesser charge, for example, a one-year prison sentence for each. The state wants the more serious charge and pressures both of you to confess and implicate the other. A deal is offered in which if you confess, but your partner does not, you will go free, and your partner will be sentenced to ten years. The same deal is offered to your partner. If both of you confess, the term is three years each, and if neither confesses, it is one year each. The options are charted in figure 2.

Figure 2. The prisoner's dilemma as an example of game theory applied.

Your Strategy	Partner's Strategy		
		Confess	*Stay Quiet*
	Confess	You: 3 years Partner: 3 years	You: 0 years Partner: 10 years
	Stay Quiet	You: 10 years Partner: 0 years	You: 1 year Partner: 1 year

Wright (2000) points out that there are two quirks in the Prisoner's Dilemma that impede intuitive comprehension. First, in the Prisoner's Dilemma, the object of the game is to achieve the *lowest* score possible, since the score represents each player's prison sentence. This can most easily be thought of as competing for the lowest payoff, which seems counterintuitive. Second, to "cheat" is to tell the truth. These are two characteristics of the Prisoner's Dilemma that run contrary to the majority of game theory games (Wright, 2000) and are unique to this popular example.

Wright (2000) reveals two key features of non-zero sum games such as the Prisoner's Dilemma. First, communication carries critical importance. If the prisoners cannot communicate, and behave logically, both will suffer a prison sentence. When considering the possible options as a player of the Prisoner's Dilemma, the importance of communication becomes clear. Suppose my partner cheats on me by confessing. If I stay quiet, I get a ten year sentence. If I cheat too, I get a three-year sentence. If my partner stays quiet, I am still better off cheating as I will go free, rather than the one-year sentence I will receive if I stay quiet too. The logic becomes irresistible: never cooperate, always "cheat" because the outcome will be your best option every time.

If both players follow this logic, by both always cheating, both will get three years in jail. If both players stay quiet, each receives one year in jail. The win-win outcome is, obviously, for both players to stay quiet. However, it makes no sense for either to stay quiet unless both have been assured by the other that he or she will stay quiet too. This is why communication is critical.

The second key feature of the Prisoner's Dilemma is trust (Wright, 2000). Players must be able to trust the assurances of other players. If a player suspects that another player will cheat even after giving assurance, then cheating will still produce a more beneficial outcome. This is not irrational as there is substantial temptation for any player to cheat.

BEST COPY AVAILABLE

Rationality

Neoclassical economics is based on the assumption that human beings are absolutely rational in their economic choices (Becker, 1993). For use in general economic models, rationality has been a tool to limit the range of possibility and make more accurate predictions (Gibbons, 1992). Thus, neoclassical economic theory is not applicable in situations that involve restricted competition, or options that are not presented because they are irrational (McCain, 2000). In neoclassical economic theory, to choose rationally is to maximize one's rewards. The importance of rationality is in its assumption that a given players actions are predictable, or that a player will always choose the outcome that will yield the greatest benefit. "The largest problem for neoclassical economics has been in situations that require decisions outside the money economy, because rationality does not hold" (McCain, 2000, p. 17).

What has made an impact on social science with regard to the Prisoner's Dilemma is the outcome that if both players act rationally, or do what is in their best self-interest, they will both be made worse off in terms of their own purposes. An arms race is another example of such a phenomenon: each country acting in its own self interest will, overall, make the world worse off (McCain, 2000).

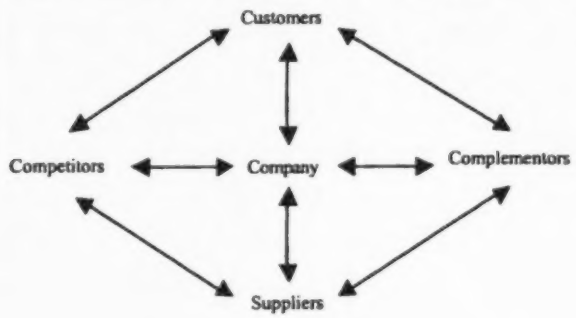
Applying Game Theory Concepts to Business

Brandenburger & Nalebuff (1996) apply the concepts of game theory to business strategy. The authors also describe the elements of game theory in business strategy by using the acronym PARTS, standing for players, added value, rules, tactics and scope, respectively.

Players

Brandenburger & Nalebuff (1996) pose the question: "if business is a game, who are the players and what are their roles?" (p. 16). To answer, they begin by offering the Value Net (see figure 3). Brandenburger & Nalebuff (1996) submit that the Value Net is a helpful tool when considering a given business situation as a game. "This map, the Value Net, represents all the players and the interdependencies among them" (Brandenburger & Nalebuff, 1996, p. 17). The vertical dimension of the value net denotes the flow of goods while the horizontal dimension identifies the competitors and complementors. These terms warrant definition and differentiation. "A player is your complementor if customers value your product more when they have the other player's product than when they have your product alone" (Brandenburger & Nalebuff, 1996, p. 18). Competitors are the opposite. "A player is your competitor if customers value your product less when they have the other player's product than when they have your product alone" (Brandenbuger & Nalebuff, 1996, p. 18).

Figure 3. The Value Net provides a model for examining the players in a game.



Added Value

The key to understanding the power distribution in a game is in the concept of added value. Brandenburger & Nalebuff define added value as "the size of the pie when you are in the game minus the size of the pie when you are out of the game" (1996, p. 45). Simply put, your added value is what you bring to the game, or what the others would miss by not inviting you into the game. A warning here: do not expect to get more than your own added

value out of a game situation because once you ask for more than your added value, you are asking the others involved in the game to divide less than they would have if you had never been invited (Levine, 2000).

An excellent example of added value is seen in movie stars. Sylvester Stallone rose to stardom with Rocky, and was paid a minimal salary for his efforts in the film. However, when he signed for Rocky II, he had enormous added value, and thus, could demand and enormous salary.

Rules

An examination of the rules of the game will help to establish the limits to the negotiations. While some business deals are free form and without limits, others are strictly bounded. For example, most retail stores offer the same price to all customers. This is a rule. In some situations, cultures, or business situations, customers are not allowed to negotiate individually on the price of given goods. Other situations, cultures, or business situations rely on individual bartering.

Game theory also posits that for every action there is a reaction. Brandenburger & Nalebuff (1996) point out that this expected reaction is similar to Newton's third law in physics, however there is a critical difference: In physics, the reaction is expected to be equal and opposite. This is not the case with reactions in game theory – they are not expected to be equal or opposite – they are not limited. According to Brandeburger & Nalebuff, "You look forward into the game and then reason backward to figure out which initial move will lead you where you want to end up" (1996, p. 52).

Tactics

The job of managing and shaping competitors' perceptions is an essential part of business strategy. Buyers and sellers negotiate – sellers portray what they have to offer as valuable, while buyers might not agree on the same level. Negotiations involve, and in fact, rely on perceptions (McCain, 2001). Brandenburger & Nalebuff describe tactics as "actions that players take to shape the perceptions of other players" (1996, p. 199). There are three common tactics described here (1) lifting the fog (2) preserving the fog and (3) creating complexity (Brandenbuger & Nalebuff, 1996).

A full display of capability, or lifting the fog means that a player will demonstrate full confidence in a given product, service or choice. This is commonly referred to as putting one's money where one's mouth is. "The tactic is to put on a display that impostors can't, or wouldn't dare to, match" (Brandenburger & Nalebuff, 1996, p. 203). This is a common tactic in companies that are certain of their competitiveness (Levine, 2000). For example, Microsoft has often used this tactic, as its leaders know that few companies can offer the same or similar products with any degree of success.

Preserving the fog is a risky tactic, but can be an extremely effective one. When an organization or department turns down a project or business deal, those responsible have good reason to hope the deal is never seen again. If a competitor tries it out and fails, the first company is vindicated, as the project was doomed to failure (Gibbons, 1992). However, if someone picks up the project and turns it into a success, the judgement of decision makers in the first company is seriously questioned. "If you follow the herd, you'll succeed or fail along with the herd. The fog is preserved. You'll never stand out if you're right, but you're also less likely to get eaten alive if you're wrong" (Brandenbuger & Nalebuff, 1996, p. 213). This tactic is one of joining the herd.

Creating complexity is a method of confusing an opponent. "Unpredictability is sometimes the key to effectiveness" (Brandenburger & Nalebuff, 1996, p. 222). This tactic is simply used to cause confusion to other players who think they know how you function as an individual, group, or organization. For example, complex pricing schemes, product bundling, or even long distance phone bills produce confusion that obscures the real price. All of these are methods of covering or obscuring the real price of a given product.

Ultimately, the goal of any tactic is to shape people's perceptions of the game. The game is changed when perceptions of the game are changed. The key to perceptions is noting that people observe there to be several different games occurring at once, when in effect, these are all parts of the same game.

Scope

In principle, a game does not have boundaries, but a game without boundaries is also far too complex to analyze. For this reason, people draw and re-draw boundaries almost constantly. "People often talk about a national economy, or an industry, as if it were the whole picture. Of course, everyone knows that's a fiction. In reality, the

world's economies are highly interdependent – indeed, increasingly so" (Gibbons, 1992, p. 57). Scope refers to the boundaries that are drawn in order to make sense of a given situation.

Analyzing individual games in isolation is threatening, thus "Academic game theory models are sensitive to assumptions about who knows what and when and to the structure of the game itself, but these assumptions, in isolation, are not of much use in the real world" (Bushko & Raynor, 1997, p. 4). Game theory method relies heavily on the systems view of interconnectivity, and also provides the tools to analyze complex games or situations without loosing this overall context.

Results and Findings: Theory Integration Question and Discussion

The theory integration question of this inquiry is as follows: *Can game theory methodology provide assistance to the HRD profession in integrating multiple theories for disciplinary understanding?*

Swanson (2001) has put for the following definition: "Human resource development (HRD) is a process of developing and unleashing human expertise through organization development (OD) and personnel training an development (T&D) for the purpose of improving performance" (p. 90). Furthermore, he provides a model of the HRD process within organization and larger environment. Within this purposeful context, Swanson's advocates three theory legs for the discipline of HRD that are visualized as a 3-leeged stool that stands on a rug of ethics. He goes on to advocate that "the whole theory of HRD is proposed to be the integration of psychological, economic, and system theories within an ethical frame" (Swanson, p. 93). He goes on to propose an overarching theory integration proposition for HRD:

> *HRD must integrate its core psychological, economic, and system theories into a holistic theory and model for practice.* (Swanson, 2001, p. 94)

The challenge of this proposition is large. First, most HRD professionals function from principles and tools of practice with weak and inconsistent reference to any research and theory. Thus, just getting HRD professionals to clearly state a theory that explains their work is enormous. Even so, most simultaneously espouse that HRD is grounded in multiple theories while saying nothing at all about the integration of multiple theories in defining the HRD discipline and its practices.

Game theory methodology appears to provide potential for integrating and applying economic, system, and psychological theories in HRD practice. First, it fully acknowledges the three theory domains and second, its focus is on decision-making within the complex real-life situations. Game theory methodology can be utilized in analysing economic, systems, and psychological situations, thus it appears that game theory methodology might prove promising in integrating these theories of HRD. Game theory has primarily been used in decision situations and has not been used in the manner advocated by the authors. Therefore, the authors acknowledge the preliminary and exploratory nature of this proposition.

Applying game theory methodology to HRD would logically need to be confined to boundaries established by the HRD definition and purpose. Once confined to HRD, it is useful to highlight the fact that game theory methodology is best suited for addressing strategic issues and ill-defined problems. Not all problems facing HRD professional are strategic or ill-defined. Some projects contain both. For example, a major hotel chain engaged a deep analysis related to the strategic and ill-defined problem of customer satisfaction and its relationship to business success. The complex sets of system, economic, and psychological information from this analysis could be holistically thought through using game theory methodology. Once a business strategy was determined, game theory methodology would be of less value to subsequent decisions. For example, if training materials were to be designed to implement the new customer service strategy, game theory methodology would not be very useful to making training design decisions compared to the available training design methodologies.

It is our position that game theory can provide assistance to the HRD profession in integrating multiple theories for disciplinary understanding. Furthermore, game theory methodology is best be applied to the work of HRD assuming its strategic roles. A series of case studies applying game theory methodology in actual organizations would be useful in testing the theory integration proposition.

Results and Findings: Strategic Role Fulfilment Question and Discussion

The question of the added value of game theory methodology to HRD is as follows: *Can game theory methodology provide assistance to the profession in fulfilling the HRD strategic roles?*

Swanson (2001) asserts that HRD is of strategic value if (1) it is performance-based (2) demonstrates strategic capability and (3) responds to the emergent nature of strategy. Our position is that game theory methodology can contribute to HRD and its fulfilment of these three strategic roles.

Performance-Based HRD

HRD interventions serve a broad range of interests. While HRD can serve the needs of individuals and groups within organizations, HRD that is strategic contributes to business goals and organization performance (Swanson, 1994). "Performance-based HRD must be based on a clear definition of the performance problem through accurate identification of actual and desired performance requirements at the organization, process, and individual levels (Swanson, 2001, p. 347).

Game theory methodology *focuses* on outcomes; thus, HRD practitioners using the methods advocated in game theory must consider the strategies and payoffs for several alternative situations before focusing in on one particular strategy. Game theory methodology aims first at understanding the game that is being played. Tools such as The Value Net (Brandenburger & Nalebuff, 1996) are useful in defining the players, the boundaries, and the stakes.

Game theory can also assist in the clear definition of performance problems. For example HRD professionals might use game theory tools in assessing the key relationships that are jeopardized by a quality issue in a specific department. These tools can also function as internal diagnostics at the interfaces between divisions (Rummler & Brache, 1995).

Demonstrating Strategic Capability

HRD provides education and learning about the nature of systems and strategy, and in many cases, HRD professionals contribute directly to the planning process (Toracco & Swanson, 1995). Education is critical in providing the systems perspective for those who set the strategic direction, while direct participation in the strategy process by HRD professionals ensures the recognition and consideration of competitive advantages achieved through the development of human expertise.

Game theory methodology is highly systemic in nature and contributes to the consideration of options prior to the decision-making process (Gibbons, 1992). Brandenburger & Nalebuff (1996) point out the need to define the scope of a game, while keeping in mind that no game occurs in isolation. That is, the effects and implications of one game will likely affect another game that is often perceived as separate. The HRD professional can use game theory tools to keep the broad perspective and examine the implications of several possible outcomes in a strategic situation.

Game theory methodology can also be used proactively to suggest possible future outcomes of given strategic options. A thorough analysis of player actions and responses can help HRD professionals anticipate possible future options and payoffs. While the intent of game theory methodology is to evaluate decision implications, its potential to predict options cannot be ignored.

Emergent Nature of Strategy

"HRD cannot add value to the shaping of strategy if the strategy is already fully formulated" (Torraco & Swanson, 1995, p. 19). For this reason, HRD professionals must find ways to embrace the emergent nature of strategy. For the HRD professional this means the constant preparation and development of employee expertise to take full advantage of business opportunities that emerge with little or no indication. Simply viewing strategy as an evolving phenomenon indicates the need for expertise at the individual, process, and organizational levels. "Academic game theory models are sensitive to assumptions about who knows what and when and to the structure of the game itself" (Bushko & Raynor, 1997, p. 4).

Game theory methodology provides the methods for assessing the interconnectedness of strategic options and situations. With useful means for evaluating the implications of strategic decisions, and their counter-decisions, game theory methodology supports the emergent nature of strategy and its wider implications. Simply charting decision options on the map presented in Figure 1, or by using the value net to asses a given situation might allow the user to see pieces of the whole situation that may have otherwise been overlooked.

Conclusions and Implications for Further Research

Based on the literature and logical connections, game theory methodology has potential in helping the HRD profession address the complexity (1) of integrating multiple theories for disciplinary understanding and in (2) fulfilling its strategic roles. It is proposed that series of HRD case studies focused on theory integration and strategy problems be conducted using game theory methodology to assess the utility and validity of the methodology.

References

Axelrod, R. (1984). *The evolution of cooperation.* San Francisco: Basic Books.

Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis with special reference to education* (3rd ed.). Chicago: University of Chicago Press.

Brandenburger, A. M., & Nalebuff, B. J. (1996). *Co-opetition.* New York: Doubleday.

Bushko, D., & Raynor, M. (1997). Consutling's future, game theory and storytelling. *Journal of Management Consulting, 9*(4), 3-6.

Dooley, C. R. (1945). *The training within industry report, 1940-1945.* Washington, DC: War Manpower Commission Bureau of Training, Training Within Industry Service.

Fundenberg, D., & Levine, D. K. (1999). *The theory of learning in games.* Cambridge, MA: The MIT Press.

Fundenberg, D., & Levine, D. K. (1995). Consistency and cautious fictitious play. *Journal of Economic Dynamics and Control, 19,* 1065-1090.

Gagne, R. M. (1962). Military training and principles of learning. *American Psychologist* , 17(2) 83-91.

Gibbons, R. (1992). *Game theory for applied economists.* Princeton, NJ: Princeton University Press.

Gilley, J. W. & Maycunich, A. (1998). Strategically integrated HRD: Partnering to maximize organizational performance. Cambridge, MA: Perseus.

Holton, E.F (2001). Psychology and the discipline of HRD--contributions and limitations. In R. Swanson and E. Holton, *Foundations of Human Resource Development* (pp. 100-106). San Francisco: Berrett-Koehler.

Levine, D. K. (2000). *Game theory.* Los Angeles, CA: UCLA Press.

Levine, D. K., & Pesendorfer, W. (2001). The evolution of cooperation through imitation. *Econometrica, 54,* 533-554.

Mezirow, J. (Ed.) (2000). Learning as transformation: Critical perspectives on a theory in progress. San Francisco: Jossey-Bass.

Rappaport, A. (1960). *Fights, games, and debates.* Ann Arbor, MI: University of Michigan Press.

Rummler, G. A., & Brache, A. P. (1995). *Improving performance: How to manage the white space on the organization chart.* (2nd ed.). San Francisco: Jossey-Bass.

Ruona, W. E. A. (2001). System theory as a foundation for HRD. In R. Swanson and E. Holton, *Foundations of Human Resource Development (*pp. 114-124). San Francisco: Berrett-Koehler.

Swanson, R. A. (1996). In praise of the dependent variable. *Human Resource Development Quarterly, 7*(3), 203-207.

Swanson, R. A. (1997). TADD short (Theory application deficit disorder). *Human Resource Development Quarterly, 8*(3), 193-195.

Swanson, R. A. (1998). The witch doctor's pharmacist *Human Resource Development International.* 1(1), 7-8

Swanson, R. A. (2001). The discipline of human resource development. In R. Swanson and E. Holton, *Foundations of Human Resource Development.* San Francisco: Berrett-Koehler

Swanson, R. A. & Holton, E. F. (2001). *Foundations of human resource development.* (pp. 88-100). San Francisco: Berrett-Koehler.

Toracco, R. J. (1997). Theory building research methods. In R. Swanson & E. Holton III (Eds.), *Human Resource Development Research Handbook* (pp. 114-137). San Francisco: Berrett-Kohler.

Torraco, R. J. (2001). Economics—human capital theory and human resource development, In R. Swanson and E. Holton, *Foundations of Human Resource Development.*(pp. 106-114). San Francisco: Berrett-Koehler.

Torraco, R. J. & Swanson, R. A. (1995). The strategic roles of human resource development. *Human Resource Planning, 18*(4), 3-38

Tucker, A. W. (1950). *The prisoner's dilemma.* Paper presented at Stanford Univeristy, Psychology consortium. Palo Alto, CA: Stanford Univeristy.

von Neumann, J. & Morgenstern, O. (1947). *Theory of games and economic behavior.* Princeton: Princeton University Press.

Walton, J. (1999). Strategic human resource development. London: Financial Times.

Wright, R. M. (2000). *Non-zero: The logic of human destiny.* New York: Random House.

Yorks, L. & Marsick, V. J. (2000). Organizational learning and transformation. In J. Mezirow (Ed.), *Learning as Transformation: Critical Perspectives on a Theory in Progress.* (pp. 253-281). San Francisco: Jossey-Bass.

BEST COPY AVAILABLE

Scenario Planning: An Examination of Definitions, Dependent Variables, and Support for Development as an HRD tool.

Thomas J. Chermack
Susan A. Lynham
Texas A&M University

Scenario planning has been receiving increased attention as a tool for considering the future in the midst of a rapidly changing business environmentThis article will examine available definitions of scenario planning, analyze the espoused dependent variables of the process, set forth an integrative definition and support the further development of the process as a useful and relevant Human Resource Development (HRD) tool.

Key Words: Scenario Planning, Dependent Variables, Definitions

While the use of futuring is growing in its popularity, many of the futuring tools available to business leaders are lacking in clarity around precisely what they do and how they achieve their espoused ends (Fahey & Randall, 1998). With increasing uncertainty and an accelerating pace of change, business leaders will rely even more heavily on such tools. Many of the available futuring tools are without coherent descriptions or explicit purposes (Mintzberg, 1994) although descriptions and purposes can be helpful in explaining theories and approaches to given processes (Egan, 2001). Scenario planning is one such process. The examination of available definitions of scenario planning is important to any scholar or practitioner concerned with the development of the process (Fahey & Randall, 1998).

Research Questions

The purpose of this paper is to explore the espoused outcome variables of scenario planning and consider its significance as an HRD tool. This is an exploratory study designed to gather the available definitions of scenario planning, examine the espoused outcomes, set forth an integrative definition, and support the further development of scenario planning as an HRD tool. The following research questions serve as the basis of this inquiry:

1) What are the available definitions of scenario planning?
2) What are the outcome variables espoused in the available definitions?
3) What would be an integrative definition that captures the essences of scenario planning and its targeted outcomes?
4) What is the relevance and use of scenario planning for HRD practitioners and scholars?

Methodology

A literature review, analysis, and synthesis accomplished the purposes of this study. The predominantly available literature comes from the United States and Europe, which may limit the study. A keyword search of "scenario planning" conducted through several large search engines at a major university in the Untied States yielded several resources. The resulting resources were examined for their definitions and outcome variables.

History and Background of Scenario Planning

Scenario planning first emerged for application to businesses in a company set up for researching new forms of weapons technology in the RAND Corporation. Kahn (1967) of RAND Corporation pioneered a technique he titled "future – now" thinking. The intent of this approach was to combine detailed analyses with imagination and produce reports as though people might write them in the future. Kahn adopted the name "scenario" when Hollywood determined the term outdated, and switched to the label "screenplay". In the mid–1960's, Kahn founded

Copyright © 2002 Thomas J. Chermack and Susan A. Lynham

BEST COPY AVAILABLE

the Hudson Institute which specialized in writing stories about the future to help people consider the "unthinkable". He gained most notoriety around the idea that the best way to prevent nuclear war was to examine the possible consequences of nuclear war and widely publish the results (Kahn& Wiener, 1967).

Around the same time, the Stanford Research Institute (SRI) began offering long-range planning for businesses that considered political, economic and research forces as primary drivers of business development. The work of organizations such as SRI began shifting toward planning for massive societal changes (Ringland, 1998). When military spending increased to support the Vietnam War, an interest began to grow in finding ways to look into the future and plan for changes in society. These changing views were largely a result of the societal shifts of the time.

The Hudson Institute also began to seek corporate sponsors, which exposed companies such as Shell, Corning, IBM and General Motors to this line of thinking. Kahn then published "The Year 2000" (Kahn & Weiner, 1967), "which clearly demonstrates how one man's thinking was driving a trend in corporate planning" (Ringland, 1998, p. 13). Ted Newland of Shell, one of the early corporate sponsors of scenario planning, encouraged Shell to start thinking about the future.

The SRI "futures group" was using a variety of methods to create scenarios for the United States Education system for the year 2000. Five scenarios were created and one entitled "Status Quo Extended" was selected as the official future. This scenario suggested that issues such as population growth, ecological destruction, and dissent would resolve themselves. The other scenarios were given little attention once the official future was selected. The official future reached the sponsors, the U.S. Office of Education, at a time when Richard Nixon's election as President was in full swing. The offered scenario was quickly deemed impossible because it was in no way compatible with the values that were advocated from the leader of the country (Ringland, 1998). SRI went on to do work for the Environmental Protection Agency with Willis Harmon, Peter Schwartz, Thomas Mandel and Richard Carlson constructing the scenarios.

Meanwhile, Professor Jay Forrester (1961) of the Massachusetts Institute of Technology was using similar concepts to describe supply and demand chains. The use of scenario concepts in his project were more to develop a model which would help people understand the nature of growth and stir up public debate. The results were published by Meadows in 1992 (Meadows et al, 1992).

Scenario planning at Shell was well on its way. Ted Newland and Pierre Wack, as the heads of corporate planning for Shell Oil, suggested in 1967 that thinking six years ahead was not allowing enough lead time to effectively consider future forces in their industry (Wack, 1985a). Shell began planning for the year 2000. When the Yom Kippur war broke out and oil prices plummeted, Shell was prepared. The ability to act quickly has been credited as the primary reason behind the company's lead in the oil industry (van der Hiejden, 1997).

Shell's success with the scenario planning process encouraged numerous other organizations to begin thinking about the future. Because the oil shock was so devastating to views of a stable future, by the late 1970's the majority of the Fortune 1000 corporations had adopted scenario planning in one form or another (Ringland, 1998).

The success of scenario use was short lived. Caused by the major recession and corporate staffing reductions of the 1980's, scenario use was on the decline. It is also speculated that planners over-simplified the use of scenarios, confusing the nature of story telling with forecasting (Ringland, 1998; Godet & Roubelat, 1996). According to Kleiner (1996), the time had come for managers to realize that they did not have the answers [the answers for what?]. Michael Porter led a "back to the basics" approach suggesting that corporations use external forces as a platform for planning (1985). In this time of evaluating how planning happens many consulting firms began developing scenario planning methodologies. Huss & Honton, (1987) describe three approaches of the time: 1) intuitive logics, introduced by Pierre Wack; 2) trend-impact analysis, the favorite of the Futures Group; and 3) cross-impact analysis, implemented by Battelle. Shell continued to have success with scenario planning through two more oil incidents in the 1980's and slowly, corporations cautiously began to re-integrate the application of scenarios in planning situations. Scenario planning has been adopted at a national level in some cases, and its methods have been successful in bringing diverse groups of people together (Kahane, 1992; Van der Merwe, 1994).

Results and Findings: Examining the Definitions

The process of scenario planning is young, and many variations have been developed. This variety of approaches can also be found in the available definitions and espoused dependent, or outcome variables of scenario planning. The articles and books yielded from a keyword search were examined for their definitions of scenario planning and the espoused dependent, or outcome variables of the process that were embedded or implied in the definitions. The results of this search are presented in Table 1. Sources that did not contain a definition of scenario planning have been left out. The following eighteen definitions are a product of this keyword search.

BEST COPY AVAILABLE

Table 1. *Scenario Planning Definitions and Dependent Variables*

Author	Date	Definition	Dependent Variables
Porter	1985	"An internally consistent view of what the future might turn out to be – not a forecast, but one possible future outcome" (Porter, 1985, p. 63).	*A view of one possible future outcome*
Schwartz	1991	"A tool for ordering one's perceptions about alternative future environments in which one's decisions might be played out" (Schwartz, 1991, p. 45).	*Ordered perceptions about alternative future decision-making environments*
Simpson	1992	"The process of constructing alternate futures of a business' external environment" (Simpson, 1992, p. 10).	*Constructed alternate futures*
Bloom & Menefee	1994	"A description of a possible or probable future" (Bloom & Menefee, 1994, p. 223).	*A described possible or probable future*
Collyns	1994	"An imaginative leap into the future" (Collyns, 1994, p. 275, in 5th discipline field book).	*An imagined future*
Thomas	1994	"Scenario planning is inherently a learning process that challenges the comfortable conventional wisdoms of the organization by focusing attention on how the future may be different from the present" (Thomas, 1994, p. 6)	*Challenged comfortable conventional wisdoms about the future*
Schoemaker	1995	"a disciplined methodology for imagining possible futures in which organizational decisions may be played out" Schoemaker, 1995, p. 25)	*Imagined possible decision-making futures*
Van der Heijden	1997	1) External scenarios are "internally consistent and challenging descriptions of possible futures" 2) An internal scenario is "a causal line of argument, linking an action option with a goal", or "one path through a person's cognitive map" (van der Heijden, 1997, p. 5)	*Descriptions of possible futures* *Explicit cognitive maps*
De Gues	1997	"Tools for foresight-discussions and documents whose purpose is not a prediction or a plan, but a change in the mindset of the people who use them" (De Gues, 1997, p. 46)	*Changed mindsets*
Ringland	1998	"That part of strategic planning which relates to the tools and technologies for managing the uncertainties of the future" (Ringland, 1998, p. 83).	*Managed future uncertainties*
Bawden	1998	"Scenario planning is one of a number of foresighting techniques used in the strategic development of organizations, which exploit the remarkable capacity of humans to both imagine and to learn from what is imagined". (University of Western Australia, GBN)	*Human imagination and learning made explicit*
Fahey & Randall	1998	"Scenarios are descriptive narratives of plausible alternative projections of a specific part of the future" (Fahey & Randall, 1998, p. 6)	*Plausible alternative projections of a specific part of the future*
Alexander & Serfass	1998	"Scenario planning is an effective futuring tool that enables planners to examine what is likely and what is unlikely to happen, knowing well that unlikely elements in an organization are those that can determine its relative success" (Alexander & Serfass, 1998, p. 35)	*Examined future likelihoods and unlikelihoods*
Tucker	1999	"Creating stories of equally plausible futures and planning as though any one could move forward" (Tucker, 1999, p. 70).	*Stories of equally plausible futures that inform planning*
Kahane	1999	"A series of imaginative but plausible and well-focused stories of the future" (Kahane, 1999, p. 511 in 5th discipline field book).	*Plausible stories of the future*
Kloss	1999	"Scenarios are literally stories about the future that are plausible and based on analysis of the interaction of a number of environmental variables" (Kloss, 1999, p. 73)	*Infomed, plausible stories about the future*
Wilson	2000	"Scenarios are a management tool used to improve the quality of executive decision making and help executives make better, more resilient strategic decisions" (Wilson, 2000, p. 24)	*Improved executive strategic decision-making*
Godet	2001	"A scenario is simply a means to represent a future reality in order to shed light on current action in view of possible and desirable futures" (Godet, 2001, p. 63)	*A represented future reality*

13 BEST COPY AVAILABLE

Results and Findings: Examining the Dependent Variables

Some of the definitions examined here do not explicitly state the outcome variables of scenario planning. Many of the definitions feature imbedded outcome variables, which may support the notion that some definitions are unclear about their primary intentions. This also suggests that scenario planning professionals are just beginning to consider the importance of defining what they do and explicitly stating what they intend to achieve by doing it.

An examination of Table 1 shows that almost half of the available definitions date from 1997 to the present. The increase in recent scholarly literature around scenario planning might suggest a push to establish boundaries and begin the conversation of what it is that scenario planning purports to accomplish. This recent increase in scholarly works may also suggest that the process is developing and maturing with the help of concerned professionals (Fahey & Randall, 1998).

The outcome variables displayed in Table 1 can be grouped thematically into four major areas, suggesting four key outcome themes of scenario planning, namely, changed thinking, informed narratives or stories about possible plausible futures, improved decision-making about the future, and enhanced human learning and imagination. These four outcome thematics are:

- Changed Thinking
- Informed narratives or stories about possible or plausible futures
- Improved decision-making about the future
- Enhanced human learning and imagination

The above themes are supported by a recent literature review (Chermack, Lynham, & Ruona, 2001). This review suggests that to inform decision making, learn through challenging the currently held mental models, enable organizational learning, and enable organizational agility, are all core aims of the scenario planning process. Of significant note is that none of the available definitions of scenario planning include an outcome or dependent variable of performance improvement.

Due to the high costs usually associated with the practice of scenario planning, it is surprising that performance improvement has not yet been made an explicit outcome of this strategic process. Perhaps it is assumed that scenario planning will result in performance improvement. However, while such an implicit assumption may be necessary, it is insufficient evidence that the practice of scenario planning actually results in performance improvement. Indeed, this lack of an explicit performance improvement outcome may point to a larger gap in the body of knowledge that is used to inform the practice and development of scenario planning. It is in the spirit of attending to these multiple outcome variables, including performance improvement that the Human Resource development (HRD) lens may have much to contribute to the development of the scenario planning process and also to future scenario planning, research, theory and practice. Primarily, the HRD lens, which is informed by the three theoretical foundations of psychology, systems, and economics, might contribute the view and theory of performance improvement (Swanson, 1999). As Swanson (1999) states "performance is the valued productive output of a system in the form of goods or services" (p.5). The push for performance based HRD has led to the development and application of theory building research methods (Lynham, 2000a; Swanson, 1999; Swanson & Holton, 2001; Torraco, 1995) that have been helpful in the growth and advancement of the HRD field. The recognition of performance (in terms of economics), in addition to learning, is a perspective that could contribute to the growth, maturity, and accountability of the process of scenario planning.

In an attempt to construct an integrative definition of scenario planning, it is important to include the thematics explicated in the examination of the available definitions highlighted in Table 1. By then adding the HRD perspective of performance improvement to these thematics, we can integrate the performance improvement component into this definition. Thus, after combining the HRD lens with the key thematics revealed by the available definitions of scenario planning, the authors suggest the following integrative definition of scenario planning: *Scenario planning is a process of positing several informed, plausible and imagined alternative future environments in which decisions about the future may be played out, for the purpose of changing current thinking, improving decision making, enhancing human learning and improving performance.* (Porter, 1985, Schwartz, 1991, Ringland, 1998, Shoemaker, 1995). This integrative definitional perspective of scenario planning may, in turn, further facilitate a push to evaluate and validate that the scenario planning process does indeed achieve what it purports to achieve, and that its informing theories hold up when examined against rigorous criteria for sound applied theory (Patterson, 1983).

The distinguishing factor for scenarios is that they are not predictions or forecasts. Scenarios are not concerned with getting the future "right", rather they aim at challenging current paradigms of thinking and rolling people into a series of stories in which attention is directed to aspects that would have been otherwise overlooked (Wack, 1985; Shoemaker, 1995).

BEST COPY AVAILABLE

Supporting Scenario Planning as an HRD Tool

Swanson (1999) describes three branches of the systems theory foundation of HRD, namely, general systems theory, chaos theory, and futures theory. "Futures theory is critical for sustainable performance because it prepares one to recognize and cope with an evolving future state" (Swanson, 1999, p. 17). If scenario planning is founded on theories that are found to validate relationships, it may be a tool that fits in the futures theory branch of the systems theory foundation of HRD (Chermack & Lynham, 2001). No attempts have been made to evaluate theories of scenario planning against rigorous criteria for sound applied theory (Patterson, 1983). From this perspective, scenario planning is potentially a critical tool for the HRD professional because it might help practitioners and scholars recognize and cope with a rapidly changing business environment and the uncertainties in considering the future.

Cummings & Worley (2001) describe several methods of integrating strategic change. Among such methods are strategic planning, open systems planning, integrated strategic change, and transorganzational development. Scenario planning can be viewed from this perspective as a strategic organization development intervention. Swanson, Lynham, Ruona, & Provo (1998) posit the Strategic Organizational Planning (SOP) model, which integrates scenario building into the strategic planning process through a recurring divergent-convergent inter-relationship: "scenario building flares out the thinking in its expansiveness and strategic planning reins in the thinking into an action plan" (p. 7).

Ringland (1998) also describes a method for using scenario stories to inform the strategy building process. Wilson (2000) outlines four approaches for using scenarios to inform business strategy and strategic decisions, namely: (1) a sensitivity/risk assessment, in which a specific strategic decision is evaluated through several scenario stories, (2) strategy evaluation in which scenarios act as "test beds" to evaluate the viability of an existing strategy, (3) strategy development (with a planning focus) which selects one scenario as a strategic starting point and uses the others to test the resilience of the strategy, and finally, (4) strategy development (without a planning focus) that assumes a goal of building the most resilient strategy for the largest variety of situations.

In recent years HRD professionals have seen an increasing emphasis on an active role in the strategy making and implementation process within organizations (Toracco & Swanson, 1999). In light of this aspired strategy-shaping role scenario planning must be seen as a tool of increasing importance to HRD research and practice in the future. As is evidenced by the examination of dependent variables of scenario planning, it is clear that one of the primary espoused goals of scenario planning is to alter current mental models of organization leaders. HRD professionals have a history and understanding of the theories of adult learning advocated by Piaget (1977) and Vygotsky (1986). Particularly the constructivist learning perspective, which encompasses theories of Piaget, (1977) Vygotsky (1986) and others (Fosnot, 1996) might inform the successful implementation of scenario planning (van der Heijden, 1997) as it attempts to alter mental models about managers' perceptions. Chermack & Van der Merwe (2001) make the connections between scenario planning and constructivist learning explicit with the intent of using constructivist learning theory to inform scenario planning practice. HRD professionals are in a unique position, with an understanding of these learning theories, to greatly improve the theory and practice of scenario planning in ways that business leaders and senior executives often overlook or are ill-equipped to do (van der Heijden, 1997).

Implications for Further Research

The conversation of boundaries and definitions is taking place in the field of HRD, and has been for several years (Holton, 1998; McLean, 2000; Ruona, 2000; Swanson, 1999; Torraco, 1998). Fahey & Randall (1998) suggest it is time that scenario planning professionals do the same and take a closer look at what they do, what they state that they do, and how they know they can achieve the results that they claim. The emerging questions concerning the outputs and boundaries of scenario planning may be a hint that scenario planning professionals may be moving in a similar direction. The further examination of these espoused boundaries, outcomes, and definitions is needed to ensure the future maturity and success of the scenario planning process. The dependent variables examined herein are labeled espoused dependent variables because there has not yet been a push or drive for evaluation in scenario planning. This lack of evaluation has been noted as a concern in the practice of scenario planning (Chermack, Lynham, & Ruona, 2001; Phelps, Chan, & Kapsalis, 2001; Gerogantzas & Acar, 1995). As an example, it is clear from the analysis of outcome variables that scenario planning aims to change managers' mindsets and improve decision-making. However, the evidence that scenario planning actually changes managers' mindsets, or improves decision-making is anecdotal (Wack, 1985a) and there have been few attempts to measure such claims. Although there are increasing efforts to evaluate the process (Phelps, Chan, & Kapsalis, 2001), there have been relatively few studies that establish the effectiveness of scenario planning.

BEST COPY AVAILABLE

Another concern is the theory base that informs the process of scenario planning (Chermack, Lynham, & Ruona, 2001). Dubin (1978) suggests that units, categories and themes aid in the development of theory. The themes revealed by examining the outcome variables of the scenario planning process suggest that several theoretical domains inform scenario planning. In order to establish the validity of the theories that underlie and inform the process of scenario planning, these theories must first be identified and then evaluated against some criteria for sound applied theory (Patterson, 1983). Once performance improvement has been recognized as a critical outcome variable of scenario planning the need to evaluate the process will naturally follow. As Swanson (1999) states: "Chasing after individual or organizational change without first specifying a valid unit of performance is inane. This is because change can take place while real performance declines" (p. 5). With the addition of the HRD lens, and more specifically the theoretical component of performance improvement, there would likely be a drive to evaluate not only the outcomes of the scenario planning process, but also the theory bases that inform the process. Doing so is likely to encourage and enhance more related research and theory development and, in turn, lead to better informed and improved practice of scenario planning.

Conclusions

This paper has attempted to present the available definitions and espoused outcome variables of scenario planning. This paper has also continued to support scenario planning as a significant tool for strategic HRD research and practice. Building on previous works (Swanson, Lynham, Ruona & Provo, 1998; Miller, Lynham, Provo, & St. Claire, 1997), this paper has further highlighted a number of ways in which using the theoretical foundations of HRD (Swanson, 1999), could result in improved scenario planning research, theory and practice. Specifically, this paper has identified four thematics that capture the espoused outcome variables of the scenario planning process, suggested the addition of a performance improvement outcome variable, and provided an integrated definition of scenario planning.

References

Alexander, W., & Serfass, R. (1998). Creating and analyzing your organization's quality future. *Quality Progress, 31*(7), 31-36.

Bawden, R. (1998, March). 'The Leadership Revolution', keynote address to AusTAFE Regional Conference, Ballarat, Victoria.

Bloom, M., & Menefee, M. L. (1994). Scenario planning and contingency planning. *Public Productivity & Management Review, 17*(3), 223-230.

Chermack, T. J., Lynham, S. A., & Ruona, W. E. A. (in press). A review of scenario planning literature. *Futures Research Quarterly.*

Chermack, T. J., & Lynham, S. A. (2001). Considering OD theories from the theoretical foundations of HRD and performance improvement. In O. Aliaga (Ed.), *Academy of Human Resource Development Conference Proceedings (pp. 372-379).* Baton Rouge, LA: AHRD.

Chermack, T. J., & van der Merwe, L. (2001). Constructing scenario planning: Approaching the process from a constructivist perspective. Unpublished Manuscript.

Collyns, N. In A. Kliener (Author), (1994). Creating Scenarios. In Senge, P. M., Kleiner, A., Roberts, C., Ross, R. B., and Smith, B. J. (Eds.), *The fifth discipline fieldbook: Strategies and tools for building a learning organization (pp. 274-277).* New York: Doubleday.

Cummings, T. G., & Worley, C. G. (2001). *Organization development and change.* (6th ed.). Cincinnati: South-Western College Publishing.

Dubin, R. (1976). Theory building in applied areas. In M. D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology* (pp. 17-39). Chicago: Rand McNally.

De Geus, A. (1997). *The living company.* Boston: Harvard University Press.

Egan, T. M. (in press). Organization development: An examination of definitions and dependent variables. *Organization Development Journal.*

Fahey, L. & Randall, R. M. (1998). What is scenario learning? In L. Fahey & R. Randall, (Eds.), *Learning From the Future: Competitive Foresight Scenarios* (pp.3-21). New York: John Wiley & Sons, Inc.

Forrester, J. W. (1961). *Industrial dynamics.* Cambridge: MIT Press.

Fosnot, C. T. (1996). Constructivism: A psychological theory of learning. In C. T. Fosnot (Ed.), *Constructivism: Theory, perspectives and practice* (pp. 17-39). New York: Teachers College Press.

Georgantzas, N. C. & Acar, W. (1995). *Scenario-driven planning: Learning to manage strategic uncertainty.* Westport, CT: Quorum

Godet, M., & Roubelat, F. (1996). Creating the future: The use and misuse of scenarios. *Long Range Planning, 29*(2), 164-171.

Godet, M. (2001). *Creating futures: Scenario planning as a strategic management tool.* London: Economica Publishing.

Holton, E. F. III (1999). Performance domains and their boundaries. In R. J. Torraco (Ed.), *Performance Improvement Theory and Practice* (pp. 26-46). Advances in Developing Human Resources, 1. San Francisco: Berret-Koehler.

Holton, E. F. III. (1998). What is performance? Levels of performance revisited. In R. Torraco (Ed.), *The Research Agenda for Improving Performance.* Washington, DC: ISPI Press.

Huss, W. R., & Honton, E. J. (1987). Scenario planning: What style should you use? *Long Range Planning, 20*(4), 21-29.

Kahane, A. (1992). The Mont Fleur scenarios: What will South Africa be like in the year 2002? Supplement to *Weekly Mail* and *The Guardian Weekly.* Bellville: South Africa.

Kahane, A. (1999). Scenarios for changing the world. In Senge, P., Kliener, A., Roberts, C., Ross, R., Roth, G., & Smith, B. (Eds.), *The dance of change: The challenges to sustaining momentum in learning organizations* (pp. 238-239). New York: Doubleday.

Kahn, H. & Wiener, A. J. (1967). The next thirty-three years: A framework for speculation. *Daedalus, 96*(3), 705-732

Kliener, A. (1996). *The age of heretics.* New York: Doubleday.

Kloss, L. (1999). The suitability and application of scenario planning for national professional associations. *Nonprofit Management & Leadership, 10*(1), 71-83.

Lynham, S. A. (2000). *The development of "a theory of responsible leadership for performance".* (Tech. Rep.). St. Paul, Minnesota: University of Minnesota, Human Resource Development Research Center.

Lynham, S. A., Provo, J. M., & Ruona, W. E. A. (1998). The role of scenarios in business strategy and human resource development. In R. J. Torraco (Ed.), *Academy of Human Resource Development Conference Proceedings* (pp. 169-178). Baton Rouge, LA: AHRD.

Meadows, D. H., Meadows, D. L., & Randers, J. (1992). *Beyond the limits.* New York: Chelsea Green Publishing Company.

McLean, G. (1999). Get out the drill, glue and more legs. *Human Resource Development International, 2*(1), 6-7.

Miller, R. F., Lynham, S. A., Provo, J., & St. Claire, J. M. (1997). Examination of the use of scenarios as learning and decision-making tools for human resource development. In E. F. Holton III (ed.) *Academy of Human Resource Development Conference Proceedings* (pp.80-86). Atlanta, GA: AHRD.

Mintzberg, H. (1994). *The rise and fall of strategic planning.* London: Prentice-Hall.

Patterson, C. H. (1983). *Theories of counseling and psychotherapy.* Chicago: University of Chicago Free Press.

Phelps, R., Chan, C., & Kapsalis, S. C. (2001). Does scenario planning affect performance? Two exploratory studies. *Journal of Business Research, 5*(1), 223-232.

Piaget, J. (1977). *Equilibration of cognitive structures.* New York: Viking.

Porter, M. E. (1985). *Competitive advantage.* New York: Free Press.

Ringland, G. (1998). *Scenario planning: Managing for the future.* New York: John Wiley.

Ruona, W. E. A. (1998). Systems theory as a foundation for HRD. In R. Torraco (Ed.), *Academy of Human Resource Development Conference Proceedings* (pp. 888-896). Baton Rouge, LA: AHRD.

Ruona, W. E. A. (2001). Core beliefs in human resource development. In W. Ruona & G. Roth (Eds.), Philosophical Foundation of Human Resource Development (pp. 1-27). *Advances in Developing Human Resources,* 7. San Francisco: Berret-Koehler.

Schwartz, P. (1991). *The art of the long view.* New York: Doubleday.

Shoemaker, P. J. H. (1995). Scenario planning: A tool for strategic thinking. *Sloan Management Review, 37*(2), 25-40.

Simpson, D. G. (1992). Key lessons for adopting scenario planning in diversified companies. *Planning Review, 20*(3), 11-18.

Swanson, R. A. (1999). The foundations of performance improvement and implications for practice. In R. J. Torraco, (Ed.), Performance Improvement Theory and Practice (pp. 1-25). *Advances in Developing Human Resources,* 1. San Francisco: Berrett-Koehler.

Swanson, R. A. (1998). The discipline of human resource development. In P. Kuchinke (Ed.), *Academy of Human Resource Development Conference Proceedings* (pp. 75-93). Baton Rouge, LA: AHRD.

Swanson, R. A. (1995). Human resource development: Performance is the key. *Human Resource Development Quarterly, 62*(2), 207-213.

Swanson, R. A., & Holton, E. F. III (2001). *Foundations of human resource development*. San Francisco: Berrett-Koehler.

Swanson, R. A., Lynham, S. A., Ruona, W. E. A., & Provo, J. M. (1998). Human resource development's role in supporting and shaping strategic organizational planning. In P. Kuchinke (Ed.), *Academy of Human Resource Development Conference Proceedings* (pp. 589-594). Baton Rouge, LA: AHRD.

Thomas, C. W. (1994). Learning from imagining the years ahead. *Planning Review, 22*(3), 6-10.

Torraco, R. J. (1998). Economics as a foundation for HRD. In R. Torraco (Ed.), *Academy of Human Resource Development Conference Proceedings* (pp. 123-131). Baton Rouge, LA: AHRD.

Torraco, R. J., & Swanson, R. A. (1995). The strategic roles of human resource development. *Human Resource Planning, 18*(4), 10-21.

Torraco, R. J. (1994). *A theory of work analysis*. St. Paul: Human Resource Development Research Center, University of Minnesota.

Torraco, R. J. (1997). Theory building research methods. In R. A. Swanson & E. F. Holton (Eds.), *Human Resource Development Handbook* (pp. 114-137). San Francisco: Berrett-Koehler.

Tucker, K. (1999). Scenario planning. *Association Management, 51*(4), 70-75.

van der Heijden, K. (1997). *Scenarios: The art of strategic conversation*. New York: John Wiley.

van der Heijden, K. (2000). Scenarios and forecasting: Two perspectives. *Technological Forecasting and Social Change, 65*(3), 1-36.

van der Merwe, L. (1994). Bringing diverse people to common purpose. In P. M. Senge, A.Kleiner, C. Roberts, R. B. Ross, and B. J. Smith, (Eds.), *The fifth discipline fieldbook: Strategies and tools for building a learning organization* (pp. 424-429). New York: Doubleday.

Vygostky, L. (1986). *Thought and language*. Cambridge, MA: MIT Press. (Original work published 1962).

Wack, P. (1985a). Scenarios: Shooting the rapids. *Harvard Business Review, 63*(6), 139-150.

Wack, P. (1985b). Scenarios: Uncharted waters ahead. *Harvard Business Review, 63*(5), 73-89.

Wack, P. (1985). Scenarios: The gentle art of re-perceiving. Unpublished manuscript, *Harvard Business School*.

Watkins, K. E. & Marsick, V. J. (1995). The case for learning. In E. F. Holton III (Ed.), *Academy of Human Resource Development Proceedings* (pp. 1-1). Baton Rouge, LA: AHRD.

Wilson, I. (2000). From scenario thinking to strategic action. *Technological Forecasting and Social Change, 65*(3), 23-29.

Appreciative Inquiry: Assumptions, Approaches, and Implications for HRD

T. Marshall Egan
Texas A & M University

Cynthia McLean Lancaster
University of Minnesota

This study examines the assumptions, approaches and implications of Appreciative Inquiry for HRD. The central purpose of this inquiry was to explore the strengths and weaknesses of Appreciative Inquiry. Comparisons are drawn between Appreciative Inquiry and Action Research. In addition to outlining reported strengths and weaknesses of AI, the study revealed that in addition to being a stand-alone intervention approach, practitioners view Appreciative Inquiry as complementary to other organizational interventions.

Keywords: Organization Development, Appreciative Inquiry, Action Research

Practitioner approaches to organization development and change are regarded as important aspects of Human Resource Development (HRD) (Weinberger, 1998). Appreciative Inquiry (AI) is an organizational intervention approach that is associated with Action Research (AR). AI has been gaining recognition in the scholarly and practitioner communities (Bushe, 1999). AI is a set of unique philosophical assumptions and practices (Gotches & Ludema, 1995). Although in some ways similar to AR, a diagnostic approach introduced by Lewin (1948), AI practices involve a socio-rationalist approach to inquiry, interaction, planning, and implementation. AI scholars (Cooperrider & Srivastva, 1987) criticize AR as being overly focused on problem solving. The AI approach rejects a problem solving orientation. "The idea is to look at an organization as a positive force, understanding its strengths, and figure out how to refine and enhance what it—or a system within it—is already doing well" (Zemke, 1999). This paper reviews the assumptions forwarded by the AI approach, compares the AI approach to the AR approach, and reports findings from a qualitative inquiry involving AI practitioners.

Purpose and Theoretical Assumptions

This study examined philosophical assumptions, strategies and processes utilized in AI from the perspective of existing literature and experienced HRD practitioners. In order to differentiate and clarify the AI approach, comparisons between AI and AR are made. The research question utilized in this study was: What are the strengths and weaknesses of the AI approach from the perspective of experienced HRD practitioners utilizing AI?

AI was principally developed by David Cooperrider a professor at the Weatherhead School of Management, Case Western Reserve University. Cooperrider developed the AI approach along with Suresh Srivastva, Frank Barrett, John Carter, and others colleagues. They challenged the traditional problem solving approach to change management and introduced the term Appreciative Inquiry. AI has been used in international development efforts as well as within public and private sector organizations. The increased use of AI has led to its inclusion in the most frequently used organization development texts (Cummings & Worley, 2001; French & Bell, 1998). According to Bushe (1999), AI is one of the more significant innovations in AR in the past decade. Appreciative Inquiry "refers to both a search for knowledge and a theory of intentional collective action which are designed to help evolve the normative vision and will of a group, organization or society as a whole" (Cooperrider & Srivastva, 1987, p. 159). AI has been described as a philosophy of knowing, a methodology for managing change, and an approach to leadership and human development (Cooperrider & Srivastva, 1987; Hammond, 1998). Cooperrider and Whitney (1999) provided the following "practice-oriented" definition:

> Appreciative Inquiry is the cooperative search for the best in people, the organizations, and the world around them. It involves systematic discovery of what gives a system "life" when it is most effective and capable in economic, ecological, and human terms. AI involves the art and practice of asking questions that strengthen a system's capability to heighten positive potential. It mobilizes inquiry through crafting an "unconditional positive question" often involving hundreds or sometimes thousands of people. In AI, intervention gives way to imagination and innovation; instead of negation, criticism, and spiraling diagnosis there is discovery, dream and design. AI assumes that every living system has untapped, rich, and inspiring accounts of the positive.

Copyright © 2002 T. Marshall Egan and Cynthia McLean Lancaster

BEST COPY AVAILABLE

Link this "positive change core" directly to any change agenda, and changes never thought possible is suddenly and democratically mobilized. (Cooperrider & Whitney, 1999, p. 10)

AI is a product of the socio-rationalist paradigm (Gergen, 1982; 1990). From this perspective, reality is a product of the moment thus open to constant change and ongoing. Cooperrider and Srivastva (1987) argued that there is nothing inherently real about any particular social form. From this perspective there are no transcultural, everlasting, valid principles of social organization to be uncovered. According to AI practitioners and scholars, "Social phenomena are guided by cognitive heuristics, limited only by the human imagination; the social order is a subject matter capable of infinite variation through the linkage of ideas and action" (Cooperrider & Srivastva, 1987, p. 139). According to Bushe (1995), "Socio-rationalists argue that the theories we hold, our beliefs about social systems, have a powerful effect on the nature of social 'reality.' Not only do we see what we believe, but the very act of believing creates it" (p. 15).

The AI approach often engages an entire organization (Murrell, 1999). Cooperrider offered the "heliotropic hypothesis," which posits that social forms evolve toward the "light," toward images that are affirming and life giving (Hammond, 1998). From this perspective of AI, groups, organizations, communities, or societies have images of themselves that underlie self-organizing processes. AI promotes the principle that social systems tend naturally toward the most positive images held by their members (Bushe, 1995).

The expanding amount of literature and training on AI suggests an expanding use as an HRD intervention (Cady & Caster, 2000). AI is often identified as being related to AR (Barret, 1995). AR was developed in the 1940s and 1950s and was focused on creating a research method that would lead to both practical results and the development of new social theory. AR was positioned as an important tool in social and organizational change (Goldstein, 1992). A key emphasis of AR has been the establishment of a co-research agenda whereby practitioners and organizational members work side-by-side to analyze, implement, and evaluate systems change. AR was and continues to be a cornerstone of organization development (Rothwell, Sullivan, & McLean, 1995).

AR has been criticized as a flawed method of organizational change and as an inadequate process for developing new theory. Cooperrider and Srivastva (1987) criticized the lack of useful theory generated by traditional AR. They contended that both the method of AR and implicit theory of social organization used by AR are to blame. The problem, according to AI practitioners and scholars, is that most AR projects use logical positivistic assumptions (Sussman & Evered, 1978) that treat social and psychological reality as something fundamentally stable and enduring, or external to the individual and organization.

AI, it has been argued, alleviates the conflict and resistance to change often identified in literature about other approaches to organization development and change (Barron & Moore, 1999). Where other organizational interventions concentrate on the problems to be fixed (Cooperrider & Whitney, 1999), AI focuses on "what's working well." Instead of viewing an organization as having problems, AI views an organization as doing things right, and using those right things to build the organization's future (Hammond & Royal, 1998).

It is important to note that Burke (1982) and others (Rothwell, Sullivan & McLean, 1995; French & Bell, 1998) have argued organizational interventions should take a balanced approach. The balanced approach to investigation involves an examination of both what is going well and what are the problems or challenges being faced. Asking both questions does not fully support the claim that other approaches to organizational interventions are problem centered, but that they involve both positive results and visions for the organization as well as problems being faced by the organization (Burke 1982; Rothwell, Sullivan & McLean, 1995).

Comparing the Appreciative Inquiry Approach to Action Research

Because AI has been suggested as an alternative to AR, it is important to clarify the differences and similarities between the two approaches. References to practitioners in the following discussion refer to individuals who are involved in the implementation of an organization development and change effort. The following section will outline the AI approach and compare it to AR.

AI practitioners and authors have emphasized the importance of the appreciative interview. "We believe the seeds of change are implicit in the very first questions we ask" (Cooperrider & Whitney, 1999, p. 12). The appreciative interview and the "affirmative topic choice" have been reported to be essential parts of the initial stage of an AI intervention (see Figure 1 below). The selection of the topic for exploration is viewed as essential because AI researchers "believe the seeds of change are implicit in the very first questions" (Cooperrider & Whitney, 1999, p. 12). The step following topic identification, the discovery phase, is aimed at disclosing positive capacity regarding a chosen topic. AI researchers often recommend that everyone involved in the organization development and change effort participate in interviews "because, in the process, people reclaim their ability to admire, to be

surprised, to be inspired" (Cooperrider & Whitney, 1999, p. 14). A distinguishing characteristic of AI is that every question is positive in orientation (Hammond & Royal, 1998).

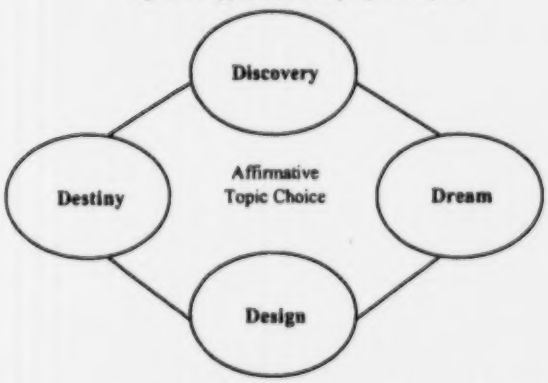
The third step is the dream phase (Cooperrider & Whitney, 1999). During this stage of intervention, insights from the first steps of the intervention are elaborated upon. From the perspective of the AI practitioner, the outlook and vision of the future for organization members is influenced by organization members' shared review of the data gathered in the previous phase. The reported results are identified as the organization's "dream" (Cooperrider & Whitney, 1999). The dream is often described as a compelling statement of strategic intent, a vision for what might be, or a powerful purpose.

The forth step in the AI process, the design phase, is identified as focusing on the creation of agreed-upon concepts and principles. The positive narratives collected in the discovery phase are used to create provocative questions and propositions (Cooperrider & Whitney, 1999). Because of their connections to positive stories, provocative questions or propositions are said to come from the positive core of the organization. An example of such a question provided by Cooperrider and Whitney is, "What would our organization look like if it were designed to maximize the positive core and accelerate realizing our dreams?"

When individuals come to agreement on the design stage, the AI process moves to the final destiny phase: "Originally, the final 'D' stood for 'delivery' and was dedicated to writing action plans, building implementation strategies and monitoring progress" (Zemke, 1999, p. 31). The final step in the AI process has more recently been described as focusing on sustaining the efforts of the previous stages (Cooperrider & Whitney, 1999).

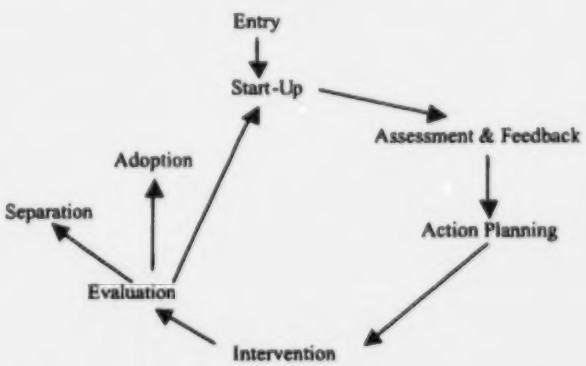
AR is a framework for diagnosing, implementing, and evaluating a change process (see Figure 2 below). "It allows for collaboration between practitioner and client throughout the process in order to distribute knowledge and understanding within the organization" (Cady & Caster, 2000, p. 80). Although there are several AR approaches varying from five to fourteen steps (Argyris, 1989; Barker & Barker, 1994; Cummings & Worley, 2000; Davis & Cook, 1998; DePoy, Hartman & Haslett, 1999; Edmonstone & Havergal, 1995; Lewin, 1948; McLean & Sullivan, 1989), the general approach involves data gathering, diagnosis, implementation, and evaluation of the intervention. Figure 2 identifies the eight-step AR process presented by McLean & Sullivan (1989) (see references above for more information regarding the techniques and assumptions associated with AR). Two of the differentiating factors between AR and AI can be found in the Assessment and Feedback stage, as well as the Evaluation stage, presented in the AR model below.

Figure 1. Appreciative Inquiry 4-D Cycle



Modified from Cooperrider & Whitney, 1999

Figure 2. A Model of Action Research



McLean & Sullivan, 1989

As previously mentioned, those involved in AI criticize AR as a problem solving focused approach. According to the AI literature, the problem solving approach of AR limits the opportunities for organizations to be successful because it reinforces existing beliefs instead of addressing the possibilities for the creation of new beliefs. AR is additionally criticized because it keeps the organization moving from one unsolved problem to another (Zemke, 1999). According to Cady and Caster (2000), there are three main challenges facing AR: (1) AR is problem-solving oriented in comparison to the "positive process frameworks" utilized in AI, (2) AR has been left open to interpretation resulting in AR models that have become complex and somewhat intimidating for practitioners, and (3) AR has not been utilized in conjunction with other organization development and change approaches. Despite

these challenges, AR has been widely utilized for several decades (Cummings & Worley, 2000). There have been recent suggestions (Cady & Caster, 2000; Golembiewski, 1999; McLean, 1996) to integrate AI and AR approaches.

Problems with the Appreciative Inquiry Approach

AI has received criticism as an approach to organization development and change. According to Golembiewski (1999), executives tend to favor an AI approach to organization development and change over other approaches since it is more likely to heighten integrative rather than punitive impulses. If executives ask employees to think of the accomplishments of the organization and of leadership, the only option the AI process presents is positive information. Therefore, AI may be viewed as attractive to those holding positional power because it averts focus away from organizational challenges and specific performance or behavioral issues that may be of concern to employees. However, employees may become frustrated with managers and executives unwilling to discuss important challenges being faced by the organization.

Critics of AI argue that there is currently little research supporting AI or differentiating it as more favorable than other approaches. McLean (1996) stated,

> Does appreciative inquiry have anything to say to our practice of OD? Certainly. But it's interesting how Cooperrider (legitimately) points to the paucity of research supporting the use of the AR model, yet provides no 'proof' (what would that look like, anyhow?) that appreciative inquiry can do any better. A synergistic approach will surely benefit all involved. (p. 3)

Golembiewski (1999) went on to say, "Social constructivism is an inhospitable foundation for anything that can be called empirical research, even loosely. And this 'creative theorizing' in AI takes on less the character of science than of advocacy, if not of self-serving spinning" (in Livingston, 1999, pp. 109-110).

Critics of AR have claimed that AR is an approach to organization development and change that focuses only on negative aspects or problems. A lack of a significant amount of research in support of AI opens the possibility that a balanced approach focusing on both the challenges and problem areas, organizational successes and best practices (Burke, 1982, p. 18), may be equally or more effective. An organizational intervention that includes features from both approaches may be most effective. As McLean (1996) stated:

> Appreciative Inquiry, however, seems to fall into the opposite trap of focusing only on what's going well, but still for the purpose of improving the organization and those within it. Improvement requires an understanding both of what's not working well and what can be built on because it is working well" (p. 2).

Methodology and Research Design

Because of the apparent lack of current practitioner-related information regarding the strengths and weaknesses of AI, an exploratory, qualitative study was undertaken. Key respondents were selected and questioned with the support of a consistent interview protocol. The data accessed from these interviews consisted of text in the form of rich oral descriptions (qualitative data). Frequencies and percentages of responses were organized to supply the reader with a summary of responses provided by interviewees. The following is a discussion of the interview protocol used to obtain more information regarding the strengths and challenges of AI.

Participant Interviews

Because of the lack of a public list of AI practitioners, a thorough literature search of HRD-related journals was undertaken. The researchers identified three professional associations that, based on available printed materials, journal articles and advertised workshops, were most likely to have practitioners involved in AI. Three professional associations (ASTD, ODI and AHRD) were contacted and asked for access to their published list of members. The identification of individuals who were known to facilitate AI was supported by cross-referencing literature from the professional associations with member listings. Assistance in identifying those professional association members involved with AI interventions was also requested from and provided by professional association contacts. The criteria for study participant identification included that they: (a) have been involved in several AI interventions; (b) had participated in AI interventions of an ongoing nature (not just a training event); and (c) had more than ten years' experience in HRD or related area.

Seventeen HRD professionals were identified as prospective participants. After contacting prospective participants, ten participants were identified as being experienced with AI to the level desired for the study. Seven HRD professionals agreed to participate in the study. The participants in the study included two Fortune 500 corporate HRD managers, one HRD manager from a medium-sized private sector organization, and four external

HRD consultants. The participants were involved in AI interventions in a variety of private sector industries, including financial services, retail merchandising, pharmaceuticals, information technology, food and agricultural products, energy, and manufacturing. Additionally, AI consultants were involved in public sector AI interventions, including public schools, foundations, healthcare organizations, and environmental associations. The employee size of the organizations reported to be part of AI interventions ranged from 7,000 to 160,000 in the private sector and 100 to 11,000 in the public sector.

Data Collection. The data were collected through interviews. The researchers conducted phone interviews with these seven experienced AI facilitators. A semi-structured interview guide was used to organize data collection during the interview process. Semi-structured interviews were selected because they are "reasonably objective while still permitting a thorough understanding of the respondent's opinions and the reasons behind them" (Borg & Gall, 1989, p. 452). Interview questions focused on process, perceptions, experiences, current status, and outcomes. Because content analysis was the planned mode for data analysis, questions were developed with sufficient breadth so as not overly to direct the responses to specific issues. An AI approach (Cooperrider & Whitney, 1999) was used for the first half of the interview before the introduction of critical or problem-solving questions.

Data Analysis. A qualitative thematic strategy for data analysis was employed to organize and to make judgments about the meaning of the data. Content analysis is an approach utilized for the systematic examination of text from the interview data. The researchers utilized an inductive approach to the development of the coding scheme utilized to analyze participant responses (Glaser & Strauss, 1967; Lincoln & Guba, 1985).

Findings

The following sections report the findings of the study.

Contributions of AI Approach

Through participation in open-ended questions, interviewees identified contributions of the AI approach. In response to the question, "In your view, what are the strengths of the AI approach?" HRD professionals identified several areas associated with improved relationships among co-workers and between managers and employees. Each respondent emphasized the importance of the AI approach to the development of a shared sense of new possibilities for the organization. Sample comments illustrating the importance of AI to improved relationships and shared understanding included:

> Appreciative Inquiry is an invitation to organization members from all levels to participate in the accessing of new possibilities for the organization and for all to engage in a goal setting process that begins with their collective imagination. Organization members discover the rich capacity of the system and the strengths of those around them.

> I am impressed with the ability of the AI approach to support organization members in the development of possibilities for the future. The process allows new ground to be broken around creativity, cooperation, and a clarified vision for the future that involves everyone.

An examination of the responses from participants indicated that all identified one of the most significant contributions of AI to be the development of cooperation in conjunction with improved skill development or improved utilization of interpersonal skills. This skill development was often attributed to the impact of the discovery phase of the AI process.

> I find AI useful in assisting organization members to develop a deeper understanding of one another through listening more effectively. This appreciative regard is demonstrated by listening, and responses support cooperation between employees and [between] employees and managers. This support fuels the movement toward organizational improvement and success.

> During an AI intervention, and beginning with my first question of them, the culture for appreciating one another shifts. Employees listen to each another more intently and focus more on the strengths each brings to the game.

The benefits of AI discussed by HRD professionals were not unlike those described to be the benefits of AR (Goldstein, 1992) or identified as the intended outcomes of organization development (Egan, 2001). However, HRD professionals interviewed for this study emphasized many of the points found in the AI literature, particularly

accessing of the "capacities of the organization" toward a "better future." As stated by one HRD professional, "Participants in the AI process experience a shift away from the problems toward the resources available to them and their co-workers. There is movement toward a realistic, more productive future that is high performing and dynamic."

In addition to the contributions described above, sixteen themes were identified during the interview process. The themes are provided below (Table 1) with associated frequencies and percentages for each response.

Table 1. *Strengths of AI Approach*

Strengths		f	%
1.	Provides opportunities for individuals to access new possibilities	7	100
2.	Invites imagination and positive imagery into the organization	7	100
3.	Connects organization members to a positive past	7	100
4.	Refines understanding about organizational capacity	7	100
5.	Captures positive organizational stories	7	100
6.	Helps to override previously difficult events	6	86
7.	Introduces new listening skills	6	86
8.	Reduces friction between employees	5	71
9.	Develops a better understanding of current organizational state	5	71
10.	Empowers employees to connect interpersonally	5	71
11.	Improves cooperation between co-workers	5	71
12.	Clarifies a new future picture for the organization	4	57
13.	Refocuses types of questions being asked by the organization	4	57
14.	Establishes confidence of individuals and teams	3	43
15.	Helps groups realize what is working well.	3	43
16.	Redirects negative stress	2	29

The positive contributions identified by the participants are supported by the literature reviewed in this study. Participants' descriptions of the contributions of AI are found in the language and explanation of the AI process. Interviewee comments parallel those of the AI literature, such as the opportunity to be involved in the discovery phase, whereby participants access and understand their organizational capacity and share in positive organizational stories. The creation of the dream, whereby positive imagery about the organization can be developed, is also referred to indirectly through mentioning opportunities for individuals to access possibilities and create positive imagery for the organization. Additional references by interviewees that supported the concepts associated with AI included the power of the narrative or story, the heliotropic hypothesis, and the organization's inner dialogue. The themes from the discussion about AI appear to have been more about the discovery and dream stages than the design and destiny stages in the AI model (Figure 1 above). As one participant said, "Because AI is so new, it is important that we emphasize the initial stages of the AI process, so that we may better understand where it may lead. Without starting the process correctly, we may be unable to determine the long term impact of AI."

Weaknesses of the AI Approach

In response to the question, "What are the weaknesses of the AI approach?" all participants identified three challenges, including: difficult interpersonal situations may be overlooked and remain unidentified as challenges to the success of the group or organization; feelings of anger or frustration are not voiced and may become barriers for some employees; and dissatisfied organization members retreat and withdraw from the process because they are unable to feel included by the AI approach. Two HRD professionals responded as follows:

> During an AI intervention it is sometimes difficult for the deeply rooted challenges between individuals to be addressed effectively. Employees may find some challenges to engaging authentically in the process when previously strained relationships show themselves in one-on-one relationships. This has been an ongoing challenge for a couple of my clients.
>
> We want everyone to participate in the process but find that some refuse and withdraw. They don't directly impair the development of the team; they just remain passive. Some [organization members] have indicated that they feel they are unable to voice their true feelings...like anger.

Another theme from the interviews was that managers might avoid challenges by focusing on "the positive". As indicated by one interviewee, "I have been asked a couple of times by employees as to how they can be heard when their manager is not open to acknowledging when difficulty occurs." Several of the HRD professionals discussed

BEST COPY AVAILABLE

their observations that managers may use the AI approach inconsistently, resulting in a lack of focus on the key messages forwarded by the AI process and the long- term commitment to AI may be more challenging for organizations than other interventions. The ten themes identified by interviewees may be found in Table 2 below.

Table 2. *Weaknesses of AI Approach*

Weaknesses	f	%
1. Difficult interpersonal situations may be overlooked	7	100
2. Feelings of anger or frustration not voiced	7	100
3. Dissatisfied organization members retreat and withdraw	7	100
4. Managers may avoid challenges by focusing exclusively on "the positive"	6	86
5. Managers may use AI approach inconsistently	5	71
6. Long-term commitment may be more challenging than other interventions	5	71
7. Problem solving can result in useful types of elaboration	4	57
8. External constituents expect problem solving process	4	57
9. Cultural preferences make participation difficult for some	2	29
10. Employees may become frustrated with managers' new terminology	2	29

The challenges for AI identified by interviewees reflected many of the same concerns found in the literature. Few participants felt that the lack of research on AI was an important consideration in the identification of challenges to AI. It was explained that AI is too new of an approach to have been well researched. The major concerns are associated with the challenges faced when only positive content is the focus of workplace interactions. One study participant stated, "It is difficult to watch individuals who feel they must speak in negative or critical terms; some of them seem unable at times to redirect their energy into a positive direction. We must continue to pay attention to the more subtle interactions between organization members, so that we can better understand how the focus on positive imagery and communication is or is not transferred."

Finally, interviewees were asked whether AI could effectively be included with AR or other problem-solving approaches. Interviewees were divided in their responses. Several interviewees indicated that AI could be used in conjunction with other approaches because "it is important that the strength of AI be tapped, but it is also recognized that in some cases it is a consulting approach that can be used in conjunction with other approaches." Others disagreed indicating that the movement toward a combined AI and AR approach was "misguided and misses the point of the approach. We need to embrace the philosophy behind AI, not just use part of it." The mixed response to this question is similarly to the various discussions in literature about AI. (Bushe, 1995; Cady & Caster, 2000; Golembiewski, 1999; Schiller, 1998)

Discussion

This study explored the AI approach to organizational interventions and found sixteen specific strengths and ten specific weaknesses to the AI approach as reported by study participants. The participants in this study supported many of the strengths of AI reported in the literature (Bushe, 1995; 1998; Cooperrider & Srivastva, 1987; Jones, 1998). Further, this study found support for the potential limitations of AI as an exclusive organization intervention approach (Cady & Caster 2000; Golembiewski, 1999; McLean, 1996). The perspectives shared by the participants in this study further elaborate on AI as an HRD practice. Although there may be some differences in opinion regarding the exclusive use of an AI approach in HRD interventions, the uniqueness of the AI approach may be beneficial to HRD, even if merged with AR approach (see Cady & Caster, 2000). The results from this study are not generalizable, but elaborative. Future examination of AI interventions from both interpretive and positivistic research perspectives is recommended. For instance, the advantages and disadvantages of AI discussed in this study could be used as the basis for future development of a survey to be used with a large group of HRD practitioners. Additionally, comparative research, such as that performed by Jones (1998), and other case study research may be of benefit to determine the impact of AI practices. Finally, interpretive studies examining the experiences of practitioners and participants involved in AI interventions may be of benefit to scholars and practitioners.

References

Barros, I. O., & Cooperrider, D.L. (2000). A story of Nutrimental in Brazil: How wholeness, appreciation, and inquiry bring out the best in human organizations. *Organization Development Journal, 18*(2), 22-27.

Burke, W. (1982). *Organization development: Principles and practices*. Boston: Little, Brown.

Bushe, G. R. (1995). Advances in appreciative inquiry as an organization development intervention. *Organization*

BEST COPY AVAILABLE

Development Journal, 13(3), 14-22.
Bushe, G. R. (1998). Appreciative inquiry with teams. *Organization Development Journal, 16*(3), 41-49.
Bushe, G. R. (1999). Advances in appreciative inquiry as an organization development intervention. *Organization Development Journal, 17*(2), 61-68.
Bushe, G. R. (2000). Five theories of change embedded in appreciative inquiry. In D. L. Cooperrider, P. F. Sorensen, Jr., D. Whitney, & T. F. Yaeger (Eds.), *Appreciative inquiry: Rethinking human organization toward a positive theory of change* (pp. 99-121). Champaign, IL: Stripes Publishing.
Cady, S. H. & Caster, M. A. (2000). A DIET for action research: An integrated problem and appreciative focused approach to organization development. *Organization Development Journal, 18*(4), 79-93.
Cooperrider, D.L., & Srivastva, S. (1987). Appreciative inquiry in organizational life. In R. Woodman & W. Pasmore (Eds.), *Research in organizational change and development*: Volume 1 (pp. 129-169). Greenwich, CT: JAI Press.
Cooperrider, D., & Whitney, D. (1999). *Appreciative inquiry*. San Francisco: Berrett-Koehler.
Cooperrider, D., & Whitney D. (2000). A positive revolution in change: Appreciative inquiry. In D. L. Cooperrider, P. F. Sorensen, Jr., D. Whitney, & T. F. Yaeger (Eds.), *Appreciative inquiry: Rethinking human organization toward a positive theory of change* (pp. 3-26). Champaign, IL: Stripes Publishing.
Cummings, T. C., & Worley, C. G. (2001). *Organization development and change* (7th ed.). Cincinnati, OH: South-Western College Publishing.
Egan, T. M. (2001). Organization development definitions and dependent variables. In Oscar Aliaga (ed.) *Proceedings of the Academy of Human Resource Development*, Tulsa, Oklahoma.
French, W. L., & Bell, C. H. (1998) Organization development: behavioral science interventions for organization improvement. New York: Prentice Hall
Glaser, B. & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine De Gruyter.
Goldstein, J. (1992). Beyond planning and prediction: Bringing back AR to OD. *Organization Development, 10*(2), 1-8.
Golembiewski, R. (1999). Fine-tuning appreciative inquiry: Two ways of circumscribing the concept's value-added. *Organization Development Journal, 17*(3), 21-27.
Gotches, G., & Ludema, J. (1995). An interview with David Cooperrider on appreciative inquiry and the future of OD. *Organization Development Journal, 13*(3), 5-13.
Hammond, S.A. (1998). *The thin book of appreciative inquiry* (2nd ed.). Plano, TX: Thin Book.
Head, R.L., & Young, M.M. (1998). Initiation culture change in higher education through appreciative inquiry. *Organization Development Journal, 16*(2), 65-71.
Jones, D. A. (1998). A field experiment in appreciative inquiry. *Organization Development, 16*(4), 69-78.
Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
Livingston, J. (1999). An appreciative inquiry interview with Robert Golembiewski: The human organizational dimensions of global change. *Organization Development Journal, 17*(1), 109-115.
McLagan, P. (1989). *Models for HRD practice*. Alexandria, VA: American Society for Training and Development.
McLean, G. N. (1996). AR in OD: RIP? *Human Resource Development Quarterly, 7*(1), 1-3.
McLean, G. N., & Sullivan, R. S. (1989). *Essential competencies of internal and external OD consultants*. Unpublished manuscript.
Merriam, S.B., & Brockett, R.G. (1997). *The profession and practice of adult education*, San Francisco, CA: Jossey-Bass.
Murrell, K.L. (1999). International and intellectual roots of appreciative inquiry. *Organization Development Journal, 17*(3), 49-60.
Schiller, J. (1998). A dialogue about leadership and appreciative inquiry. *Organization Development Journal, 16*(4), 79-83.
Watkins, J.M., & Cooperrider, D. (1998). Organizational inquiry model for global social change organizations. *Organization Development Journal, 14*(4), 97-112.
Weinberger, L. A. (1998). Commonly held theories of human resource development. *Human Resource Development International, 1*(1), 75-93.
Zemke, R. (1999, June). Don't fix that company! *Training*, 27-33.

BEST COPY AVAILABLE

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: 2002 AHRD Conference Proceedings

Author(s): Toby marshall Egan & Susan A. Lynham

Corporate Source: Academy of Human Resource Development

Publication Date: February 2002

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1

☒

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A

☐

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B

☐

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here, → please

Signature: Kathryn S. Doff

Printed Name/Position/Title:

Organization/Address: Academy of Human Resource Development
College of Technology
Bowling Green State University
Bowling Green, OH 43403-0301

Telephone: 419.372.9155

FAX: 419.372.8385

E-Mail Address: office@ahrd.org

Date: 2-25-03

(over)

EL copies

09/12/2003 08:27 FAX 6142921260 OSU CTR EDUC & TRNG ENPL 002

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

Acquisitions Coordinator
ERIC Clearinghouse on Adult, Career, and Vocational Education
Center on Education and Training for Employment
1900 Kenny Road
Columbus, OH 43210-1090

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

09/12/2003 08:27 FAX 6142921260 OSU CTR EDUC & TRNG EMPL 003